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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,909	10/15/2003	Juan C. Vives	10010529-4	7455
22879 7590 10/26/2007 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER MARINI, MATTHEW G	
			ART UNIT 2854	PAPER NUMBER
			MAIL DATE 10/26/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/686,909

Applicant(s)

VIVES ET AL.

Examiner

Matthew G. Marini

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-62 is/are pending in the application.
- 4a) Of the above claim(s) 59-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Newly submitted claims 59-62 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 59 requires completely different structure, specifically structure related to a drive system, making no reference to how the printing unit communicates with a controller. Therefore claim 59 is independent and distinct from the original claimed invention, requiring a completely different search and classification.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 59-62 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 43-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. (5,456,539) in view of Burikov et al. (6,341,839).

As for claim 43, Wright et al. teaches in Fig. 2, a system for simultaneously printing on two or more media surfaces, as read in lines 1-2 in the Abstract, comprising: printing

units, 8b and 9b, disposed on a closed print head path, A; and a print medium feed unit, PFA as seen in Fig. 1, adapted to feed at least one print medium, P, through said closed print head path, A and B, Col. 2 lines 44-51, said at least one print medium, P, including two or more print surfaces, front and back; and means for electrically communicating with a print controller as said printing unit travels along said closed print head path, A and B. However, Wright et al. does not teach said means being conductive brushes extend from the print head, said brushes being adapted to communicate with a conductive bus positioned around said closed print head path; wherein said printing units, 8b and 9b, are adapted to travel along said closed print head path, A and B, via belt 6, to print on at least two print surfaces, Col. 1 lines 38-40.

In so far as the recited structure of brushes, controller, and a bus, Burikov et al. teaches in Fig. 2, a device similar in structure to Wright et al., where conductive brushes, 15, extend from a print head, 2, said brushes, 15, being adapted to communicate with a print controller, 20, via a conductive bus, 9, positioned around said closed print head path, Col. 4 lines 6-12; said brushes, 15, extend from the printing unit, 2, and communicate with the controller, 20, in the sense that electricity is conducted from the bus, 9, to the printing unit, 2, in order for the print unit, 2, to operate; hence electrically communicating. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Wright et al. to include the brushes and bus taught by Bruikov et al. because the brushes and bus will reduce the complexity of wires and connectors powering the moving print heads taught by Wright et al. making replacement and maintenance of parts simpler.

As for claim 44, Wright et al. teaches in Fig. 2, a system for simultaneously printing on two or more media surfaces, as read in lines 1-2 in the Abstract, wherein said printing units, 8b and 9b, are adapted to print identical information on each of said at least two print surfaces, P, as read in Col. 4 lines 42-46.

As for claim 45, Wright et al. teaches in Fig. 2, a system for simultaneously printing on two or more media surfaces, as read in lines 1-2 in the Abstract, wherein said printing units, 8b and 9b, are adapted to print different information on each of said at least two print surfaces, P, as read in Col. 4 lines 42-46.

As for claim 46, Wright et al. teaches in Fig. 2, a system for simultaneously printing on two or more media surfaces, as read in lines 1-2 in the Abstract, wherein said print medium feed unit, PFA, is adapted to feed a single print medium, P, and wherein said printing units, 8b and 9b, are adapted to print on two sides of said single print medium, Col. 1 lines 38-40.

As for claim 47, Wright et al. teaches in Fig. 2, a system for simultaneously printing on two or more media surfaces, as read in lines 1-2 in the Abstract, wherein said printing units, 8b and 9b, are adapted to travel in a single direction along said closed print head paths, A and B, Col. 3 lines 37-43.

As for claim 48, Wright et al. teaches in Fig. 2, a system for simultaneously printing on two or more media surfaces, as read in lines 1-2 in the Abstract, wherein said closed print head paths, A and B are oblong in a print medium feed direction.

As for claim 49, Wright et al. teaches in Fig. 2, a system for simultaneously printing on two or more media surfaces, as read in lines 1-2 in the Abstract, further

comprising a drive system, motor, 2, gears, 3 and 4, belt, 6, and pulleys, 5, adapted to carry said printing units, 8b and 9b, along said closed print head paths, A and B.

As for claim 50, Wright et al. teaches in Fig. 2, a system for simultaneously printing on two or more media surfaces, as read in lines 1-2 in the Abstract, includes a drive belt, 6, and a pair of opposing pulleys, 5, said printing units, 8b and 9b, being engaged to said drive belt, 6.

As for claim 51, Wright et al. teaches in Fig. 2, a system for simultaneously printing on two or more media surfaces, as read in lines 1-2 in the Abstract, include a drive pulley mounted to drive gear, 4, for driving the belt, 6, and an idler pulley, mounted to the left of drive gear, 4, for stabilizing the belt, 6.

Claims 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. (5,456,539) in view of Burikov et al. (6,341,839), as applied to claim 43, further in view of Inoue et al. (JP 04310770).

As for claim 52, Wright et al. and Burikov et al. teach all that is claimed in the above rejection of claim 50, except where the pair of pulleys are adapted to allow the printing units to pass around the pulley to travel along said closed print head path. Inoue et al. teaches in Fig. 1a and 1e, a pair of pulleys, 48, adapted to allow the printing unit, 12, to pass around at least one of the pulleys to travel along said closed print head path defined by belt, 49. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Wright et al. belt assembly to allow a print unit to pass around at least one of the pulleys as taught by Inoue et al. in Fig. 1 because it reduces the need for two print units, reducing the overall size and cost of the device seen in Wright et al.

Claims 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. (5,456,539) in view of Burikov et al. (6,341,839), as applied to claim 43, further in view of Shen (6,623,105).

As for claims 55-57, Wright et al. and Burikov et al. teach all that is claimed in the above rejection of claim 43, but remains silent regarding if the printing unit, 2, of Wright et al. includes resistors configured to eject ink from associated nozzles and wherein the brushes, 15, of Burikov et al. are configured to electrically connect those resistors to drive circuitry involved in sending electricity from the bus, 9, to the brushes, 15, connected to the printing unit found in Burikov et al., therein powering the printing unit and the selected resistors in the printing unit for firing, and wherein the roll of paper, Wright et al 19, feed past the printing unit is between a width of 1 to 21cm.

Shen teaches in Col. 3 lines 47-50, a typical ink jet print head, 40, similar to the printing units taught in both Wright et al. and Burikov et al, containing resistors and nozzles selectively powered to eject ink corresponding to characters for a point of sales device. It would have been obvious to one of ordinary skill in the art at the time of invention to include the resistors of Shen to the printing unit of Wright et al. because Shen teaches it is conventional in the art of ink jets to use such resistors to eject ink from the print head.

Regarding the roll of paper, 19, taught by Wright et al. being within the claimed range of 1 to 21 cm, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the roll, 19, to have a width found between 1 and 21cm, when viewed with the POS printer taught by Shen, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering

the optimum or working range involves only routine skill in the art. In re Aller, 105 USPQ 233

Response to Arguments

Applicant's arguments filed 8/31/07 have been fully considered but they are not persuasive. In response to applicant's arguments regarding that neither Wright et al. nor Burikov et al. teach conductive brushes that communicate with a print controller, the examiner disagrees. Insofar as the recited structure of the brushes, controller, and bus, Burikova et al. teaches all three. The brushes, 15, make contact with a bus like object, 9, which electrically communicates with the printing unit, 2, in the sense that the bus supplies electricity sent from a controller unit, 20, to the printing unit, via the conductive brushes, 15, so as to print on a roll of paper. Said another way, the controller, 20, electrically communicates with the printing unit via the directed connection between the brushes, 15, located on the printing unit, 2, and the bus, 9. This connection allows for the printing unit, 2, to be supplied with electricity and eject ink onto a substrate.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew G. Marini whose telephone number is (571)-272-2676. The examiner can normally be reached on Monday-Friday 8:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew Marini

10/16/07


REN YAN
PRIMARY EXAMINER